

## RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.

Application Serial Number: 09/986,234B  
Source: 1FW16  
Date Processed by STIC: 12/2/04

# ***ENTERED***

# CRF Errors Edited by the STIC Systems Branch

Serial Number: 09/986,234B

CRF Edit Date: 12/3/04  
Edited by: AS

\_\_\_ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

\_\_\_ Corrected the SEQ ID NO. Sequence numbers edited were:

\_\_\_\_\_

\_\_\_ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

\_\_\_\_\_

\_\_\_ Deleted: \_\_\_ invalid beginning/end-of-file text ; \_\_\_ page numbers

\_\_\_ Inserted mandatory headings/numeric identifiers, specifically:

\_\_\_\_\_

\_\_\_ Moved responses to same line as heading/numeric identifier, specifically:

\_\_\_\_\_

\_\_\_ Other:  
Corrected <1507 response  
\_\_\_\_\_  
\_\_\_\_\_



IFW16

## RAW SEQUENCE LISTING

DATE: 12/03/2004

PATENT APPLICATION: US/09/986,234B

TIME: 18:40:48

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\12032004\I986234B.raw

```

3 <110> APPLICANT: LAZAR, MITCHELL
5 <120> TITLE OF INVENTION: COMPOSITIONS, METHODS AND KITS RELATING TO RESISTIN
7 <130> FILE REFERENCE: 053893-5032-01
9 <140> CURRENT APPLICATION NUMBER: 09/986,234B
10 <141> CURRENT FILING DATE: 2001-10-22
12 <150> PRIOR APPLICATION NUMBER: 60/131,263
13 <151> PRIOR FILING DATE: 1999-04-27
15 <150> PRIOR APPLICATION NUMBER: PCT/US00/11272
16 <151> PRIOR FILING DATE: 2000-04-27
18 <160> NUMBER OF SEQ ID NOS: 5
20 <170> SOFTWARE: PatentIn version 3.2
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 576
24 <212> TYPE: DNA
25 <213> ORGANISM: Mus musculus
27 <400> SEQUENCE: 1
28 gtgggacagc gagctaatac ccagaactga gttgtgtcct gctaagtctt ctgccacgta      60
30 cccacgggat gaagaacctt tcatttcccc tccttttctt tttcttctt gtccctgaac      120
32 tgctgggctc cagcatgcc a ctgtgtccca tcgatgaagc catcgacaag aagatcaaac      180
34 aagacttcaa ctccctgttt ccaaattgcaa taaagaacat tggcttaaat tgctggacag      240
36 tctcctccag aggggaagttg gcctcctgcc cagaaggcac agcagtcttg agctgctcct      300
38 gtggctctgc ctgtggctcg tgggacattc gtgaagaaaa agtgtgtcac tgccagtgtg      360
40 caaggataga ctggacagca gcccgctgct gtaagctgca ggctcgcttcc tgatgtcggg      420
42 gaagtgaagc tggtttccag cacagccacc cgttctctgta gctccagaga tgtctgatgt      480
44 cctccggtct ctacaggcac ctgcactcac gtgcgcgaat ccacacacaa gcacacatac      540
46 ttaaaaataa aacaaaacag gctggaaaaa aaaaaa      576
49 <210> SEQ ID NO: 2
50 <211> LENGTH: 114
51 <212> TYPE: PRT
52 <213> ORGANISM: Mus musculus
54 <400> SEQUENCE: 2
55 Met Lys Asn Leu Ser Phe Pro Leu Leu Phe Leu Phe Phe Leu Val Pro
56 1          5          10          15
58 Glu Leu Leu Gly Ser Ser Met Pro Leu Cys Pro Ile Asp Glu Ala Ile
59          20          25          30
61 Asp Lys Lys Ile Lys Gln Asp Phe Asn Ser Leu Phe Pro Asn Ala Ile
62          35          40          45
64 Lys Asn Ile Gly Leu Asn Cys Trp Thr Val Ser Ser Arg Gly Lys Leu
65          50          55          60
67 Ala Ser Cys Pro Glu Gly Thr Ala Val Leu Ser Cys Ser Cys Gly Ser
68 65          70          75          80
70 Ala Cys Gly Ser Trp Asp Ile Arg Gly Gly Lys Val Cys His Cys Gln
71          85          90          95

```

## RAW SEQUENCE LISTING

DATE: 12/03/2004

PATENT APPLICATION: US/09/986,234B

TIME: 18:40:48

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\12032004\I986234B.raw

```

73 Cys Ala Arg Ile Asp Trp Thr Ala Ala Arg Cys Cys Lys Leu Gln Val
74      100      105      110
76 Ala Ser
79 <210> SEQ ID NO: 3
80 <211> LENGTH: 479
81 <212> TYPE: DNA
82 <213> ORGANISM: Homo sapiens
W--> 83 <220> FEATURE:
84 <221> NAME/KEY: misc_feature
85 <222> LOCATION: (140)..(140)
86 <223> OTHER INFORMATION: n=a,t,c,g
88 <400> SEQUENCE: 3
89 gtgtgccgga tttggttagc tgagccacc gagaggcgcc tgcaggatga aagctctctg      60
91 tctcctcctc ctccctgtcc tggggctggt ggtgtctagc aagaccctgt gctccatgga      120
W--> 93 agaagccatc aatgagaggn tccaggaggt cgccggctcc ctaatatatta gggcaataag      180
95 cagcattggc ctggagtgcc agagcgtcac ctccaggggg gacctggcta cttgcccccg      240
97 aggttcgcc gtcaccgget gcacttggtg ctccgectgt ggctcgtggg atgtgcgcgc      300
99 cgagaccaca tgtaactgcc agtgcgcggg catggactgg accggagcgc gctgctgtcg      360
101 tgtgcagccc tgaggtcgcg cgcagcgcg gtacagcgcg ggcggaggcg gctccaggtc      420
103 cggagggggt gcgggggagc tggaaataaa cctggagatg atgatgatga tgatgatgg      479
106 <210> SEQ ID NO: 4
107 <211> LENGTH: 108
108 <212> TYPE: PRT
109 <213> ORGANISM: Homo sapiens
111 <400> SEQUENCE: 4
112 Met Lys Ala Leu Cys Leu Leu Leu Leu Pro Val Leu Gly Leu Leu Val
113 1      5      10      15
115 Ser Ser Lys Thr Leu Cys Ser Met Glu Glu Ala Ile Asn Glu Arg Ile
116      20      25      30
118 Gln Glu Val Ala Gly Ser Leu Ile Phe Arg Ala Ile Ser Ser Ile Gly
119      35      40      45
121 Leu Glu Cys Gln Ser Val Thr Ser Arg Gly Asp Leu Ala Thr Cys Pro
122      50      55      60
124 Arg Gly Phe Ala Val Thr Gly Cys Thr Cys Gly Ser Ala Cys Gly Ser
125 65      70      75      80
127 Trp Asp Val Arg Ala Glu Thr Thr Cys His Cys Gln Cys Ala Gly Met
128      85      90      95
130 Asp Trp Thr Gly Ala Arg Cys Cys Arg Val Gln Pro
131      100      105
133 <210> SEQ ID NO: 5
134 <211> LENGTH: 4420
135 <212> TYPE: DNA
136 <213> ORGANISM: Homo sapiens
138 <400> SEQUENCE: 5
139 aacctagcca acatggtgaa actccttctc tactaaaaat acaaaaatta gccaggatg      60
141 gtggcgagcg cctgtagtcc cagctacgtg ggaggctgag gcaggagaat cgcttgaacc      120
143 caggaggcag aggtttgcgg tgagccgaga ttgcaccact gcactccagc ctgggcaaca      180
145 gagcgagacc ctgtctcaaa aaaaaaaaaac ttggtttcgt gtggtgtatc ttcgcttggt      240
147 tctgtgtgat ctgtgattgt cttctgtcgc tttcttggtt ttctcttatt ctcggcgtgt      300

```

## RAW SEQUENCE LISTING

DATE: 12/03/2004

PATENT APPLICATION: US/09/986,234B

TIME: 18:40:48

Input Set : A:\PTO.AMC.txt

Output Set : N:\CRF4\12032004\I986234B.raw

149	tatgttgcgc	tgtgcttcgt	ttggttctac	tgttttctgt	ttccttcttt	ctcgtttttg	360
151	tcagtcgtct	tgtctgtctc	cgcagcgcgc	ttgtcactct	ggtcgcgttg	cctgtacgtc	420
153	attcgctggt	ctgectgctc	gttatcgctt	tcgcatgatt	gttttctctc	gggatcgcat	480
155	ggctgctccc	cttcttgtat	gtcttctgt	ctcctgggct	cgtcttctcc	cgttctctcg	540
157	tttgtctttc	attctctctt	ttcattctct	tttctttcac	aattacattt	cctctccgac	600
159	agtgcagtcga	ttgtctagt	tcaggggaag	ggaagggaag	aaacgaaacc	ctggggggga	660
161	tctaggagca	gacaagtcct	ctgctctgtg	ttttcataat	ctagtatcca	ggaaggggta	720
163	agcaccctgc	gtgtatctgg	ttgtaactaa	ctactcacia	ctgcacttgc	ctgtgtgaaa	780
165	acgtgagctt	gtgatgatgc	gtgacgtcag	gtaggcgctc	ctgactctcc	gtaacccaac	840
167	tttgctgtg	ccttggggat	tcctccttgc	aggtaggaag	tgaggggtac	aggttccagc	900
169	tctgggctga	gacatgatcc	agggttccac	cctgacctgg	ggctcctgga	gtcttggggc	960
171	cctggagggt	cccgtccact	gcccagactg	accaggtcc	tcgatgaagc	ctcattatga	1020
173	ggactggggg	aaaaggacct	agccacttcc	tggggaggtc	ggagacccca	gggtgagcgt	1080
175	caaggtagcc	tcaaagatga	gacgtcacct	cttgaaggca	gccatgagcc	ttgggtgggg	1140
177	acgtcactag	aggaagttca	ggccctatct	tcggaggaag	cagttggaga	ccccatagga	1200
179	ggaagggcga	tggggcagta	gaaagtcgcg	gtgtccccgc	ccctccagc	agctacgcgc	1260
181	cccactctct	tggagacgct	agatcagctc	ctccgggctt	actaaagaaa	ccacgcaggg	1320
183	ctcagatccg	ctccatcatc	atcatcatca	tcacatcatc	catctccagg	tttatttcca	1380
185	gctccccgc	aacccctccg	gacctggagc	cgcctccgcc	cgcgctgtgc	acgcgctgcg	1440
187	cgcgacctca	gggctgcaca	cgacagcagc	gcgctccggt	ccagtcctatg	cccgcgcact	1500
189	ggcagtgaca	tgtggtctcg	gcgcgcacat	cccacgagcc	acaggcggag	ccacaagtgc	1560
191	agccggtgac	ggcgaagcct	gcagcccggg	acacagagc	gtggactctg	agctgggagg	1620
193	ctgaggggtg	gagcgggagg	ggggtgggga	gcgcggaggg	gggttggggg	ggcgggggtg	1680
195	gggacgggga	cggctggagg	ctccaaccac	tgaatgggca	ctggaggcag	ggagtgaggg	1740
197	tggacaccag	tgtccagatg	gtgggcggag	aaggctggga	gtcaggacca	agatcctagg	1800
199	ggagtagagg	ctggacacgg	ggaacgtggc	ggggaggggg	cattcccagg	ggacttggaa	1860
201	cagaaatggg	cgcctggaca	acagtctcct	gcactcacct	cgggggcaag	tagccagggtc	1920
203	ccccctggag	gtgacgctct	ggcactccag	gccaatgctg	cttattgccc	taaatactgg	1980
205	ggggcaggag	gaaaggagac	agggggagct	gtgagaccaa	acgggtccctc	ccccatcctc	2040
207	ccctagccct	gttggtttgg	agctaggctc	ctgtgggcat	aggagctcac	tggcctccag	2100
209	gaccctgtct	tgagttgggt	gttttggagt	aagggaaggt	ttggagtggg	agcggggatt	2160
211	gggtttggag	ccgtggataa	ggtggggaca	gtcggagggg	ttgggagtgg	agttgggggt	2220
213	gaatttatga	tctggttggg	tttgaggatg	agatttgggtg	agcgtggggg	ctgggttggg	2280
215	gtcaggtctg	tgccagggat	cagtgaggtc	tctgagacct	ttggggagct	tgcccaagtg	2340
217	gggggtcctc	acttagggag	ccggcgacct	cctggatcct	ctcattgatg	gcttcttcca	2400
219	tggagcacag	ggtcttgcta	gacaccaaca	gccccaggac	agggaggagg	aggagacaga	2460
221	gagctttcat	cctgcaggcg	ctgaaagagg	gaaccaagag	acccacagct	ggatcagccc	2520
223	tgcctgtggg	ggaagatccg	gccccaggag	ggagtaggat	ctgccccctg	acctggacct	2580
225	ctgtccccc	atgtggggga	cagggatgga	ggctcagcct	tgaccccgag	ctccccgctg	2640
227	gtgccatggc	aagcgcagga	gcagctgtca	cttaccctct	cgggtgggctc	agctaaccac	2700
229	atccggcaca	cgaattcctg	caccgcagct	ctttctttga	ggcctcttgg	gggtggggctt	2760
231	cctggcttgg	ctaataagtc	cctgggcccc	caaccctccg	gtcccacatc	cggggccaag	2820
233	aggaagcccc	tgagcagaca	gtaagggtcg	gaggaggaag	ggagccttcc	cacttccaac	2880
235	agggcctccg	tcttcatgtc	cagagactgg	tcaggaggtg	gtgccccagg	gataatgcca	2940
237	ggggctgtgg	tctgaggaac	aggtagacaa	gcagagtttt	gcatgcaagg	gtggctgatg	3000
239	caaacatgac	aaaattaatg	cctcttgcta	ggcatgggtg	ggacaagcac	ttgtagtccc	3060
241	agctactaag	gaggtgacg	tgagagaatt	gcttgagccc	gggagttcga	agctacagtg	3120
243	acttatgatc	acagcactgc	actccagctc	gggcaacaga	gcaagaccac	ttctctaaaa	3180
245	tagtaataat	aattatgtct	ctgggtgaga	atgacatacc	acattcctac	ccaaatgccc	3240

## RAW SEQUENCE LISTING

DATE: 12/03/2004

PATENT APPLICATION: US/09/986,234B

TIME: 18:40:48

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\12032004\I986234B.raw

247	atgagcaata	gaactggtaa	ataaaatcat	ggtttatggc	cggtggtca	cgctgtaat	3300
249	cccagcactt	tgggaggcca	aggcgggcgg	atcacttgag	gtcaggagct	tgagaccaac	3360
251	ctggccaaca	tgatgaaacc	ctgtctccat	tagacataca	aaaattaact	gggcgtggtg	3420
253	gcgtgtgcct	gtaatcccag	ctacttggga	ggctgaggtg	ggagaatcac	ttgaaccgg	3480
255	gatgtggagg	ttgcagtga	ctgagatcgt	gccccctgcac	tccatcctgg	atgactagct	3540
257	tgggcacccat	agcaagactc	catctcaaaa	agaagaaaga	aaaatcatgg	tttattccat	3600
259	caatggcatc	acctgcaaca	gaagtggaa	agccattgct	catgggcca	ggccagctc	3660
261	atgtttcttc	ttggaccacc	catgagcttg	gaatggttat	acatttttat	ttgttctttg	3720
263	tttccagtac	aacgggcctt	tttgtggtaa	aatacatata	acatacaact	taccattata	3780
265	acttactttt	ttctgttttt	gagacggaat	cttgcctctgt	cgcccaggct	ggagtgcagt	3840
267	ggcgcgatct	cggtcacta	caagctccgc	ctcctgggtt	cacgccattc	tcctgcttca	3900
269	gcctcccaag	tagctgggac	tacaggcgcc	tgccaccacg	cccagctaat	tttttgtatt	3960
271	tttttttttt	tagtagagat	ggagtttcac	cgtgttagcc	aggatggtct	cgatcccctg	4020
273	accttgtgat	ctgcccgct	tggcctccca	aagtgcctggg	attacaggcg	tgaaccaccg	4080
275	tgcccggcct	tttttttttt	ttttttgaga	cgggggtcttg	ctatgttgcc	caagctagt	4140
277	tcagactcct	ggcttcaagt	aatcctccca	ccttggactc	cccagtagct	gaagctacag	4200
279	gtatgcacca	tcttgttcca	ttttaaccat	tgtttttgtt	tgtttctttg	tttcagagtc	4260
281	tactcagtt	gctcaggctg	gagtacagtg	gtcfaatctt	ggctcactgc	aacctccacc	4320
283	tcctgggttc	aagcaattct	cctgcctcag	cctcccaggt	agctgggatt	acaggcgtgc	4380
285	accaccatgc	ccggctaatt	ttttgtattt	ttagtagaga			4420

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/09/986,234B

DATE: 12/03/2004  
TIME: 18:40:49

Input Set : A:\PTO.AMC.txt  
Output Set: N:\CRF4\12032004\I986234B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 140

**VERIFICATION SUMMARY**

DATE: 12/03/2004

PATENT APPLICATION: US/09/986,234B

TIME: 18:40:49

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\12032004\I986234B.raw

L:83 M:283 W: Missing Blank Line separator, <220> field identifier

L:93 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:120





IFW16

## RAW SEQUENCE LISTING

DATE: 12/02/2004

PATENT APPLICATION: US/09/986,234B

TIME: 10:26:57

Input Set : A:\053893-5032-01.txt

Output Set : N:\CRF4\12022004\I986234B.raw

3 <110> APPLICANT: LAZAR, MITCHELL  
 5 <120> TITLE OF INVENTION: COMPOSITIONS, METHODS AND KITS RELATING TO RESISTIN  
 7 <130> FILE REFERENCE: 053893-5032-01  
 9 <140> CURRENT APPLICATION NUMBER: 09/986,234B  
 10 <141> CURRENT FILING DATE: 2001-10-22  
 12 <150> PRIOR APPLICATION NUMBER: 06/131,263 *60/131,263*  
 13 <151> PRIOR FILING DATE: 1999-04-27  
 15 <150> PRIOR APPLICATION NUMBER: PCT/US00/11272  
 16 <151> PRIOR FILING DATE: 2000-04-27  
 18 <160> NUMBER OF SEQ ID NOS: 5  
 20 <170> SOFTWARE: PatentIn version 3.2  
 22 <210> SEQ ID NO: 1  
 23 <211> LENGTH: 576  
 24 <212> TYPE: DNA  
 25 <213> ORGANISM: Mus musculus  
 27 <400> SEQUENCE: 1  
 28 gtgggacagc gagctaatac ccagaactga gttgtgtcct gctaagtcct ctgccacgta 60  
 30 cccacgggat gaagaacctt tcatttcccc tccttttctt tttcttctt gtccctgaac 120  
 32 tgctgggctc cagcatgcca ctgtgtccca tcgatgaagc catcgacaag aagatcaaac 180  
 34 aagacttcaa ctccctgttt ccaaatgcaa taaagaacat tggcttaaat tgctggacag 240  
 36 tctcctccag aggggaagttg gcctcctgcc cagaaggcac agcagtcctg agctgctcct 300  
 38 gtggctctgc ctgtggctcg tgggacattc gtgaagaaaa agtgtgtcac tgccagtgtg 360  
 40 caaggataga ctggacagca gcccgctgct gtaagctgca ggctcgcttcc tgatgtcggg 420  
 42 gaagtgcgagc tggtttccag cacagccacc cgttctgtga gctccagaga tgtctgatgt 480  
 44 cctccggtct ctacaggcac ctgcactcac gtgcgcgaat ccacacacaa gcacacatac 540  
 46 ttaaaaataa aacaaaacag gctggaaaaa aaaaaa 576  
 49 <210> SEQ ID NO: 2  
 50 <211> LENGTH: 114  
 51 <212> TYPE: PRT  
 52 <213> ORGANISM: Mus musculus  
 54 <400> SEQUENCE: 2  
 55 Met Lys Asn Leu Ser Phe Pro Leu Leu Phe Leu Phe Leu Val Pro  
 56 1 5 10 15  
 58 Glu Leu Leu Gly Ser Ser Met Pro Leu Cys Pro Ile Asp Glu Ala Ile  
 59 20 25 30  
 61 Asp Lys Lys Ile Lys Gln Asp Phe Asn Ser Leu Phe Pro Asn Ala Ile  
 62 35 40 45  
 64 Lys Asn Ile Gly Leu Asn Cys Trp Thr Val Ser Ser Arg Gly Lys Leu  
 65 50 55 60  
 67 Ala Ser Cys Pro Glu Gly Thr Ala Val Leu Ser Cys Ser Cys Gly Ser  
 68 65 70 75 80  
 70 Ala Cys Gly Ser Trp Asp Ile Arg Gly Gly Lys Val Cys His Cys Gln  
 71 85 90 95

Does Not Comply  
Corrected Diskette Needed

## RAW SEQUENCE LISTING

DATE: 12/02/2004

PATENT APPLICATION: US/09/986,234B

TIME: 10:26:57

Input Set : A:\053893-5032-01.txt

Output Set: N:\CRF4\12022004\I986234B.raw

73 Cys Ala Arg Ile Asp Trp Thr Ala Ala Arg Cys Cys Lys Leu Gln Val

74 100 105 110

76 Ala Ser

79 &lt;210&gt; SEQ ID NO: 3

80 &lt;211&gt; LENGTH: 479

81 &lt;212&gt; TYPE: DNA

82 &lt;213&gt; ORGANISM: Homo sapiens

W--&gt; 83 &lt;220&gt; FEATURE:

84 &lt;221&gt; NAME/KEY: misc\_feature

85 &lt;222&gt; LOCATION: (140)..(140)

86 &lt;223&gt; OTHER INFORMATION: n=a,t,c,g

88 &lt;400&gt; SEQUENCE: 3

89 gtgtgccgga ttgtgttagc tgagcccacc gagaggcgcc tgcaggatga aagctctctg 60

91 tctctctctc ctccctgtcc tggggctggt ggtgtctagc aagaccctgt gctccatgga 120

W--&gt; 93 agaagccatc aatgagaggn tccaggaggt cgccggctcc ctaatatatta gggcaataag 180

95 cagcattggc ctggagtgcc agagcgtcac ctccagggg gacctggcta cttgcccccg 240

97 aggtctcgcc gtcaccggct gcaattgtgg ctccgctgt ggctcgtggg atgtgcgcgc 300

99 cgagaccaca tgctactgcc agtgccgggg catggactgg accggagcgc gctgctgtcg 360

101 tgtgcagccc tgaggtcgcg cgcagcgcgt gcacagcgcg ggcggaggcg gctccaggtc 420

103 cggagggggtt gcgggggagc tggaaataaa cctggagatg atgatgatga tgatgatgg 479

106 &lt;210&gt; SEQ ID NO: 4

107 &lt;211&gt; LENGTH: 108

108 &lt;212&gt; TYPE: PRT

109 &lt;213&gt; ORGANISM: Homo sapiens

111 &lt;400&gt; SEQUENCE: 4

112 Met Lys Ala Leu Cys Leu Leu Leu Pro Val Leu Gly Leu Leu Val

113 1 5 10 15

115 Ser Ser Lys Thr Leu Cys Ser Met Glu Glu Ala Ile Asn Glu Arg Ile

116 20 25 30

118 Gln Glu Val Ala Gly Ser Leu Ile Phe Arg Ala Ile Ser Ser Ile Gly

119 35 40 45

121 Leu Glu Cys Gln Ser Val Thr Ser Arg Gly Asp Leu Ala Thr Cys Pro

122 50 55 60

124 Arg Gly Phe Ala Val Thr Gly Cys Thr Cys Gly Ser Ala Cys Gly Ser

125 65 70 75 80

127 Trp Asp Val Arg Ala Glu Thr Thr Cys His Cys Gln Cys Ala Gly Met

128 85 90 95

130 Asp Trp Thr Gly Ala Arg Cys Cys Arg Val Gln Pro

131 100 105

133 &lt;210&gt; SEQ ID NO: 5

134 &lt;211&gt; LENGTH: 4420

135 &lt;212&gt; TYPE: DNA

136 &lt;213&gt; ORGANISM: Homo sapiens

138 &lt;400&gt; SEQUENCE: 5

139 aacctagcca acatggtgaa actccttctc tactaaaaat acaaaaatta gccaggatatg 60

141 gtggcgagcg cctgtagtcc cagctacgtg ggaggctgag gcaggagaat cgcttgaacc 120

143 caggaggcag aggtttgcgg tgagccgaga ttgcaccact gcactccagc ctgggcaaca 180

145 gagcgagacc ctgtctcaaa aaaaaaaaaac ttggtttcgt gtggtgtatc ttcgcttggt 240

147 tctgtgtgat ctgtgattgt ccttctgtcg tttcttggtt ttctcttatt ctccgcgtgt 300

## RAW SEQUENCE LISTING

DATE: 12/02/2004

PATENT APPLICATION: US/09/986,234B

TIME: 10:26:57

Input Set : A:\053893-5032-01.txt

Output Set : N:\CRF4\12022004\I986234B.raw

149	tatgttgcgc	tgtgcttcgt	ttggttctac	tgttttctgt	ttccttcttt	ctcgtttttg	360
151	tcagtcgtct	tgtctgtctc	cgcagcgcgc	ttgtcactct	ggtcgcgttg	cctgtacgtc	420
153	attcgtcggt	ctgcctgtct	gttatcggtc	tcgcatgatt	gttttctctc	gggatcgcat	480
155	ggctgctccc	cttcttgtat	gtcttcttgt	ctcctgggct	cgtcttctcc	cgttctctcg	540
157	tttgtctttc	attctctctt	ttcattcctc	tttctttcac	aattacattt	cctctccgac	600
159	agtgagtcga	ttgtctagt	tcagggggaa	ggaagggaag	aaacgaaacc	ctggggggga	660
161	tctaggagca	gacaagtcct	ctgctctgtg	ttttcataat	ctagtatcca	ggaaggggta	720
163	agcacctgc	gtgtatctgg	ttgtaactaa	ctactcacia	ctgcacttgc	ctgtgtgaaa	780
165	acgtgagctt	gtgatgatgc	gtgacgtcag	gtaggcgctc	ctgactctcc	gtaacccaac	840
167	tttgccctgt	ccttggggat	tctccttgc	aggtaggaag	tgaggggtac	aggttccagc	900
169	tctgggctga	gacatgattc	agggttccac	cctgacctgg	ggctcctgga	gtcttggggc	960
171	cctggagggg	cccgtccact	gccagactgc	acccaggctc	tcgatgaagc	ctcattatga	1020
173	ggactggggg	aaaagagccc	agccacttcc	tggggagggt	ggagacccca	gggtgagcgt	1080
175	caaggtagcc	tcaaagatga	gacgtcacct	cttgaaggca	gccatgagcc	ttgggtgggg	1140
177	acgtcactag	aggaagttca	ggcctatatt	tcggaggaag	cagttggaga	ccccatagga	1200
179	ggaagggcga	tggggcagta	gaaagtcgcg	gtgtccccgc	cccctccagc	agctacgcgc	1260
181	cccactctct	tggagacgct	agatcagtc	ctccgggctc	actaaagaaa	ccacgcaggg	1320
183	ctcagatccg	ctccatcatc	atcatcatca	tcacatcat	catctccagg	tttatttcca	1380
185	gctccccgc	aaccctctcg	gacctggagc	cgcctccgcc	cgcgctgtgc	acgcgctgcg	1440
187	cgcgacctca	gggctgcaca	cgacagcagc	gcgctccggg	ccagtcctat	cccgcgca	1500
189	ggcagtgaca	tgtggtctcg	gcgcgcacat	cccacgagcc	acaggcggag	ccacaagtgc	1560
191	agccggtgac	ggcgaagcct	gcagcccggg	acacaggagc	gtggactctg	agctgggagg	1620
193	ctgaggggtg	gagcgggagg	gggggtgggg	gcgcgggagg	gggttggggg	ggcgggggtg	1680
195	gggacgggga	cggctggagg	ctccaaccac	tgaatgggca	ctggaggcag	ggagtgaggg	1740
197	tggacaccag	tgtccagatg	gtgggcggag	aaggctggga	gtcaggacca	agatcctagg	1800
199	ggagttagag	ctggacacgg	ggaacgtggc	ggggaggggg	cattcccagg	ggacttggaa	1860
201	cagaaatggg	cgcctggaca	acagtctcct	gcactcacct	cgggggcaag	tagccaggtc	1920
203	ccccctggag	gtgacgctct	ggcactccag	gccaatgctg	cttattgccc	taaatactgg	1980
205	ggggcaggag	gaaaggagac	agggggagct	gtgagaccaa	acggctccct	ccccatcctc	2040
207	ccctagccct	gttggtttgg	agctaggtcc	ctgtgggcat	aggagctcac	tggcctccag	2100
209	gaccctgtct	tgagttgggt	gttttggagt	aagggaagg	ttggagttag	agcggggatt	2160
211	gggtttggag	ccgtggataa	gggtggggaca	gtcggagggg	ttgggagtgg	agttgggggt	2220
213	gaatttatga	tctggttga	tttgaggatg	agatttgggt	agcgtggggg	ctgggttggg	2280
215	gtcaggtctg	tgccagggat	cagttaggtc	tctgagacct	ttggggagct	tgcccaagt	2340
217	gggggtcctc	acttagggag	ccggcgacct	cctggatcct	ctcattgatg	gcttcttcca	2400
219	tggagcacag	ggtcttgcta	gacaccaaca	gccccaggac	agggaggagg	aggagacaga	2460
221	gagctttcat	cctgcaggcg	ctgaaagagg	gaaccaagag	accacagct	ggatcagccc	2520
223	tgccctgtgg	ggaagatccg	gccccaggag	ggagttaggt	ctgcccctgg	acctggaccc	2580
225	ctgtccccc	atgtggggga	cagggatgga	ggctcagcct	tgaccccagc	ctccccgctg	2640
227	gtgccatggc	aagcgcagga	gcagctgtca	cttaccctct	cgggtgggctc	agctaaccac	2700
229	atccggcaca	cgaattcctg	caccgcagct	ctttctttga	ggcctcttgg	ggtggggctt	2760
231	cctggcttgg	ctaataagtc	cctgggcccc	caaccctccg	gtcccacatc	cggggccaag	2820
233	aggaagcccc	tgagcagaca	gtaagggtcg	gcagggaag	ggagccttcc	cacttccaac	2880
235	agggcctccg	tctcatgtc	cagagactgg	tcaggagggt	gtgcccagg	gataatgcca	2940
237	ggggctgtgg	tctgaggaa	aggtagacaa	gcagagtttt	gcatgcaagg	gtggctgatg	3000
239	caaacatgac	aaaattaatg	cctcttgeta	ggcatgggtc	ggacaagcac	ttgtagtccc	3060
241	agctactaag	gaggctgacg	tgagagaatt	gcttgagccc	gggagttcga	agctacagt	3120
243	acttatgatc	acagcactgc	actccagctc	gggcaacaga	gcaagaccac	ttctctaaaa	3180
245	tagtaataat	aattatgtct	ctgggtgaga	atgacatacc	acattcatac	ccaaatgccc	3240

## RAW SEQUENCE LISTING

DATE: 12/02/2004

PATENT APPLICATION: US/09/986,234B

TIME: 10:26:57

Input Set : A:\053893-5032-01.txt

Output Set: N:\CRF4\12022004\I986234B.raw

247	atgagcaata	gaactggtaa	ataaaatcat	ggtttatggc	cgggtggctca	cgcctgtaat	3300
249	cccagcactt	tgggaggcca	aggcgggagg	atcacttgag	gtcaggagct	tgagaccaac	3360
251	ctggccaaca	tgatgaaacc	ctgtctccat	tagacataca	aaaattaact	gggcgtggtg	3420
253	gcgtgtgcct	gtaatcccag	ctacttgggg	ggctgaggtg	ggagaatcac	ttgaaccggg	3480
255	gatgtggagg	ttgcagtgc	ctgagatcgt	gcccctgcac	tccatcctgg	atgactagct	3540
257	tgggcacccat	agcaagactc	catctcaaaa	agaagaaaga	aaaatcatgg	tttattccat	3600
259	caatggcatc	acctgcaaca	gaagttggaa	agccattgct	catggggccaa	gggccagctc	3660
261	atgtttcttc	ttggaccacc	catgagcttg	gaatggttat	acatttttat	ttgttctttg	3720
263	tttccagtac	aacgggcctt	tttgtggtaa	aatacatata	acatacaact	taccattata	3780
265	acttactttt	ttctgttttt	gagacggaat	cttgctctgt	cggccaggct	ggagtgcagt	3840
267	ggcgcgatct	cggctcacta	caagctccgc	ctcctgggtt	cacgccattc	tcctgcttca	3900
269	gcctcccaag	tagctgggac	tacaggcgcc	tgccaccacg	cccagctaata	ttttgtatt	3960
271	tttttttttt	tagtagagat	ggagtttcac	cgtgttagcc	aggatgggtc	cgatcccctg	4020
273	accttgtgat	ctgcccgcct	tggcctccca	aagtgtctgg	attacaggcg	tgaaccaccg	4080
275	tgcccggcct	tttttttttt	ttttttgaga	cggggtcttg	ctatgttgcc	caagctagt	4140
277	tcagactcct	ggcttcaagt	aatcctccca	ccttggaactc	cccagtagct	gaagctacag	4200
279	gtatgcacca	tcttgttcca	ttttaaccat	tgtttttgtt	tgtttctttg	tttcagagtc	4260
281	tcactcagtt	gctcaggctg	gagtacagt	gctcaatctt	ggctcactgc	aacctccacc	4320
283	tcctgggttc	aagcaattct	cctgcctcag	cctcccaggt	agctgggatt	acaggcgtgc	4380
285	accacccatgc	ccggctaatt	ttttgtattt	ttagtagaga			4420

RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 12/02/2004  
PATENT APPLICATION: US/09/986,234B      TIME: 10:26:58

Input Set : A:\053893-5032-01.txt  
Output Set: N:\CRF4\12022004\I986234B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 140

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/09/986,234B

DATE: 12/02/2004

TIME: 10:26:58

Input Set : A:\053893-5032-01.txt

Output Set: N:\CRF4\12022004\I986234B.raw

L:83 M:283 W: Missing Blank Line separator, <220> field identifier  
L:93 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:120